

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (currently amended) A method for using a plurality of transmission lines of a digital bus having a plurality of transmission lines operable in a first connection mode and a second connection mode, and capable of selecting any connection mode from among a first connection mode and a second connection mode to form a transmission line for each of said plurality of transmission lines, wherein comprising the steps of:

in said first connection mode, forming a first transmission line using said first connection mode with the first transmission line being that adapted to transmits the data sent out from one of plural electronic apparatus apparatuses coupled to the digital bus so as to be receivable for by all other electronic apparatus connected to said digital bus is formed,

in said second connection mode, forming a second transmission line using said second connection mode with the second transmission line being that adapted to transmit transmits the data between only the predetermined two predetermined electronic apparatus and said second line not communicating does not accept the data transmitted from other electronic apparatus other than said predetermined electronic apparatus is formed,

pre-selecting the plurality of transmission lines of the digital bus into groups before any transmission lines among the plurality of transmission lines is formed, said groups

including a first group that transmits data only in said first connection mode, and a second group that transmits data only in said second connection mode,

classifying said plurality of electronic apparatus connected to said digital bus ~~are classified into groups including a first group receiving apparatus that receives the data mainly~~ substantially through a transmission line of said first connection mode and a second group receiving apparatus that receives the data mainly substantially through a transmission line of said second connection mode, and

assigning some of said plurality of transmission lines ~~are secured for to~~ said first connection mode and the ~~residual~~ remaining transmission lines ~~other than transmission lines secured for said first connection mode out of said plurality of transmission lines are allocated to~~ the second connection mode.

2. (currently amended) ~~A-The transmission line using method as claimed in of~~
claim 1, wherein

a plurality of transmission lines are secured for said first connection mode correspondingly to the number of said first receiving apparatus connected to said digital bus.

3. (currently amended) ~~A-The transmission line using method as claimed in of~~
claim 1, wherein,

in the case that said first receiving apparatus functions to receive ~~the data~~ data through another transmission line while said first receiving apparatus is receiving ~~the data~~ data through one transmission line, a plurality of transmission lines are secured for said first

connection mode correspondingly to the number of said first receiving apparatus obtained on the assumption that there is said first receiving apparatus on every receivable transmission line.

4. (currently amended) A method for using a plurality of transmission lines of a digital bus having said plurality of transmission lines operable in a first connection mode and a second connection mode, that is capable of selecting any connection mode from among a first connection mode and a second connection mode to form a transmission line for said plurality of transmission lines, wherein comprising the steps of:

in said first connection mode, forming a first transmission line using said first connection mode with the first transmission line being that adapted to transmits the data data sent out from one of plural electronic apparatus apparatuses coupled to the digital bus so as to be receivable for by all other electronic apparatuses connected to said digital bus is formed,

in said second connection mode, forming a second transmission line using said second connection mode with the second transmission line being that adapted to transmit transmits the data data between only the predetermined two predetermined electronic apparatus apparatuses and does not accept accepting the data data transmitted from other electronic apparatus other than said predetermined electronic apparatuses is formed,

pre-selecting the plurality of transmission lines of the digital bus into groups before any transmission lines among the plurality of transmission lines is formed said groups including a first group that transmits data only in said first connection mode, and a second group that transmits data only in said second connection mode,

classifying said plurality of electronic apparatus connected to said digital bus are classified into groups including a first group receiving apparatus that receives the data data

~~mainly~~ substantially through a transmission line of said first connection mode and a second group receiving apparatus that receives ~~the data~~ data ~~mainly~~ substantially through a transmission line of said second connection mode, and

assigning a transmission line of said first connection mode ~~is allocated~~ to each of said first receiving apparatus that receive ~~the data~~ data ~~mainly~~ substantially through a transmission line of said first connection mode with one-to-one correspondingly correspondence.

5. (currently amended) ~~A~~ The method of claim 4, wherein said plurality of transmission line lines using method as claimed in claim 4, wherein comprises:

a transmission line of said first connection mode is previously set to each said first receiving apparatus, and

a transmission line different from said previously set transmission line is allocated to said first transmission apparatus when ~~the data~~ data that said first receiving apparatus cannot process is found on the previous set transmission line of said first receiving apparatus.

6. (currently amended) ~~A~~ The method of ~~transmission line using method as claimed in claim 4~~, wherein one of said plurality of transmission lines, when the transmission line that is to be allocated to said first receiving apparatus is exclusively occupied by another apparatus, the transmission line that is to be allocated to said first receiving apparatus is changed.

7. (currently amended) ~~A~~ The ~~transmission line using method as claimed in method of claim 6~~, wherein said plurality of transmission lines comprises:

a transmission line of said first connection mode is previously set to each of said first receiving apparatus,

each setting information of said first receiving apparatus connected to said digital bus is referred, and

when the transmission line that is to be allocated to said first receiving apparatus has been already allocated to another electronic apparatus, the transmission line is regarded as exclusively occupied by another electronic apparatus, and the transmission line that is to be allocated to the first receiving apparatus is changed.

8. (currently amended) ~~A transmission line using method as claimed in~~ The method of claim 1, wherein

an electronic apparatus that detects the necessity to classify the electronic apparatus into said first receiving apparatus and said second receiving apparatus and the necessity to secure the transmission line performs classification of the electronic apparatus into said first receiving apparatus and said second receiving apparatus and ~~securing of~~ secures the transmission line.

9. (currently amended) ~~The transmission line using method as claimed in~~ method of claim 1, wherein

a predetermined electronic apparatus out of the electronic apparatus connected to said digital bus classifies the electronic apparatus into said first receiving apparatus and said second receiving apparatus and secures the transmission line, and

when said predetermined electronic apparatus detects the necessity to classify the electronic apparatus into said first receiving apparatus and said second receiving apparatus and the necessity to secure the transmission line, said predetermined electronic apparatus performs classification of the electronic apparatus into said first receiving apparatus and said second receiving apparatus and securing of the transmission line.

10. (currently amended) ~~A-The transmission line using method as claimed in of~~
claim 8, wherein,

the necessity to classify the electronic apparatus into said first receiving apparatus and said second electronic apparatus and to secure the transmission line ~~is~~are recognized when attaching of an electronic apparatus to said digital bus or detaching of an electronic apparatus from said digital bus ~~is~~are detected, and the electronic apparatus is classified into said first receiving apparatus and said second electronic apparatus and the transmission line is secured.

11. (currently amended) ~~A-The transmission line using method as claimed in of~~
claim 8, wherein

a necessity to classify the electronic apparatus into said first receiving apparatus and said second electronic apparatus and to secure the transmission line is recognized when an instruction is given by a user, and

the electronic apparatus is classified into said first receiving apparatus and said second electronic apparatus and the transmission line is secured.

12. (currently amended) ~~A-The transmission line using method as claimed in~~ of
claim 1, wherein:

said second receiving apparatus, when said second receiving apparatus receives a
supply of ~~the data~~ from a target electronic apparatus connected to said digital bus, forms a
transmission line of said second connection mode avoiding the transmission line that has been
secured as the transmission line of said first connection mode, and receives said supply of ~~the~~
data through the formed transmission line, and

~~said second receiving apparatus,~~ when said second receiving apparatus receives
supply of ~~the data~~ data transmitted through the transmission line of said first connection mode of
said digital bus, said second receiving apparatus forms a transmission line of said first
connection mode used for transmission of ~~the data~~ data, and receives said supply of ~~the data~~ data.

13. (currently amended) ~~A-The transmission line using method as claimed in~~ of
claim 12, wherein,

when said second receiving apparatus is to receive a supply of ~~the data~~ data[[,]]
that is being transmitted through the transmission line of said first connection mode, then
through a transmission line of said second connection mode, said second receiving apparatus
specifies ~~the a~~ sender of ~~the data~~ data transmitted through the transmission line of said first
connection mode as said target electronic apparatus that supplies ~~the data~~ data to this apparatus,
and forms a transmission line of said second connection mode between said second receiving
apparatus and the specified electronic apparatus.

14. (currently amended) ~~A-The transmission line using method as claimed in of~~
claim 12, wherein,

when said second receiving apparatus is to receive supply of ~~the data~~ data from
the target electronic apparatus, said second receiving apparatus

accepts a selection input entered by a user to select ~~an~~ a sender electronic
apparatus from among said plurality of electronic apparatus connected to said digital bus,

specifies said target electronic apparatus that supplies ~~the data~~ data to this
apparatus correspondingly to said selection input, and

forms a transmission line of said second connection mode between said second
receiving apparatus and the specified electronic apparatus.

15. (currently amended) ~~A-The transmission line using method as claimed in of~~
claim 1, wherein

a sending out apparatus that is an electronic apparatus for sending out ~~the data~~
data to said digital bus is capable of sending out ~~the data~~ data through both a transmission line
connected in said first connection mode and a transmission line connected in said second
connection mode.

16. (currently amended) ~~A-The transmission line using method as claimed in of~~
claim 1, wherein

a sending out apparatus that is an electronic apparatus for sending out ~~the data~~
data to said digital bus is connected to a secured transmission line of said first connection mode

and sends out ~~the data~~ data when an instruction input entered by a user instructing that ~~the data~~ data is be sent out to a transmission line connected in said first connection mode is accepted.

17. (currently amended) ~~The transmission line using method as claimed in of~~
claim 1, wherein

an electronic apparatus connected to said digital bus changes a secured transmission line of said first connection mode when the necessity for changing said secured transmission line of said first connection mode.

18. (currently amended) ~~A- The transmission line using method as claimed in of~~
claim 17, wherein an electronic apparatus connected to said digital bus changes a secured transmission line of said first connection mode when sending out of ~~the data~~ data that cannot be processed by mean of said first receiving apparatus to said secured transmission line of said first connection mode is detected.

19.(currently amended) ~~A- The transmission line using method as claimed in of~~
claim 17, wherein an apparatus connected to said digital bus changes a transmission line of said first connection mode secured for said first receiving apparatus when the change of secured transmission line of said first connection mode is instructed by a user.

20. (currently amended) ~~A- The transmission line using method as claimed in of~~
claim 1, wherein said digital bus is the IEEE 1394 standard digital serial interface.

21. (currently amended) An information transmission system comprising:
~~formed by connecting~~ a plurality of electronic apparatus respectively coupled to a digital bus having a plurality of transmission lines; and
~~capable of selecting any connection mode from among each~~ transmission line
being predetermined to operate in a first connection mode and a second connection mode; to
~~form a transmission line for each of said plurality of transmission lines, wherein said plurality of~~
transmission lines comprising:

~~in said first connection mode, a~~ at least one transmission line operating in said
first connection mode that transmits ~~the data~~ data sent out from one electronic apparatus so as to be receivable for all other electronic apparatus connected to said digital bus ~~is formed;~~

~~in said second connection mode, a~~ at least one transmission line operating in said
second connection mode that transmits ~~the data~~ data between only ~~the two~~ predetermined two
electronic ~~apparatus~~ apparatuses and does not accept ~~the data~~ data transmitted from other
electronic ~~apparatus~~ apparatuses ~~is formed,~~

wherein the connection mode of each transmission line is pre-selected before one
of said connection modes is established,

~~an~~ at least one electronic apparatus among said plurality of electronic apparatus
connected to said digital bus ~~comprises~~ comprising:

apparatus classification means for categorizing said plurality of electronic
apparatus connected to said digital bus into a first receiving apparatus that receives ~~the data~~
~~mainly~~ substantially through a transmission line of said first connection mode and a second
receiving apparatus that receives ~~the data~~ data ~~mainly~~ substantially through a transmission line of
said second connection mode; and

transmission line securing means for securing some of said plurality of transmission lines for said first connection mode and for allocating the ~~residual~~remaining transmission lines ~~other than transmission lines secured for said first connection mode out of said plurality of transmission lines to~~ for said second connection mode.

22. (currently amended) ~~An~~The information transmission system as claimed in claim 21, wherein

said transmission line securing means of said electronic apparatus secures a plurality of transmission lines for said first connection mode correspondingly to the number of said first receiving apparatus connected to said digital bus.

23. (currently amended) ~~An~~The information transmission system as claimed in claim 21, wherein,

in the case that said first receiving apparatus functions to receive ~~the data~~data through another transmission line while said first receiving apparatus is receiving ~~the data~~data through one transmission line, said transmission line securing means of said electronic apparatus secures a plurality of transmission lines for said first connection mode correspondingly to the number of said first receiving apparatus obtained on the assumption that there is said first receiving apparatus on every receivable transmission line.

24. (currently amended) An information transmission system formed by connecting a plurality of electronic apparatus to a digital bus having ~~said a~~a plurality of transmission lines ~~and with each line~~ capable of selecting ~~any connection mode from among a~~

first connection mode and a second connection mode to form a transmission line ~~for said~~
~~plurality of transmission lines, wherein comprising:~~

~~in said first connection mode, a~~ at least one transmission line, operating in said
first connection mode, that transmits ~~the data~~ data sent out from one electronic apparatus so as to
be receivable for all other electronic apparatus connected to said digital bus ~~is formed,~~

~~in said second connection mode, a~~ at least one transmission line, operating in said
second connection mode that transmits ~~the data~~ data between only ~~the predetermined two~~
predetermined electronic ~~apparatus~~ apparatuses and does not accept ~~the data~~ data transmitted
from other electronic ~~apparatuses~~ apparatus ~~is formed,~~

at least one ~~an~~ electronic apparatus connected to said digital bus
~~comprises comprising:~~

apparatus classification means for categorizing said plurality of electronic
apparatus connected to said digital bus into a first receiving apparatus that receives ~~the data~~
~~mainly~~ substantially through a transmission line of said first connection mode and a second
receiving apparatus that receives ~~the data~~ mainly substantially through a transmission line of said
second connection mode at ~~the~~ a predetermined timing; and

transmission line securing means for securing a transmission line of said first
connection mode for each of said first receiving apparatus that receive ~~the data~~ data ~~mainly~~
substantially through a transmission line of said first connection mode ~~one-to-one~~
~~correspondingly~~ and for allocating the transmission lines other than said transmission ~~lines~~ line
secured for said first connection mode ~~out of said plurality of transmission lines~~ to said second
connection mode.

25. (currently amended) ~~An~~ The information transmission system as claimed in claim 24, wherein:

a transmission line of said first connection mode is previously set to each said first receiving apparatus, and

said transmission line securing means of said electronic apparatus allocates a transmission line different from said previously set transmission line to said first transmission apparatus when ~~the data~~ data that said first receiving apparatus cannot process is found on the previous set transmission line of said first receiving apparatus.

26. (currently amended) ~~An~~ The information transmission system as claimed in claim 24, wherein

said transmission line securing means of said electronic apparatus changes the transmission line that is to be allocated to said first receiving apparatus when the transmission line ~~that is to be allocated to said first receiving apparatus~~ is exclusively occupied by another apparatus.

27. (currently amended) ~~An~~ The information transmission system as claimed in claim 26, wherein:

a transmission line of said first connection mode is previously set to each of said first receiving apparatus,

said transmission line securing means of said electronic apparatus refers each setting information of said first receiving apparatus connection to said digital bus, and

when the transmission line that is to be allocated to said first receiving apparatus has been already allocated to another electronic apparatus, changes the transmission line that is to be allocated to the first receiving apparatus.

28. (currently amended) ~~An~~ The information transmission system as claimed in claim 21, wherein:

there is provided detection means for detecting the necessity to classify the electronic apparatus into said first receiving apparatus and said second receiving apparatus and the necessity to secure ~~the~~ a transmission line among said plurality of transmission lines,

said electronic apparatus classification means of said electronic apparatus classifies the electronic apparatus when said detection means detects the necessity to classify the electronic apparatus into said first receiving apparatus and said second receiving apparatus and the necessity to secure the transmission line, and

said transmission line securing means of said electronic apparatus secures a transmission line when said detection means detects the necessity to classify the electronic apparatus into said first receiving apparatus and said second receiving apparatus and the necessity to secure the transmission line.

29. (currently amended) ~~An~~ The information transmission system as claimed in claim 21, wherein:

an electronic apparatus comprising said apparatus classification means and said transmission line securing means is a predetermined electronic apparatus out of said plurality of electronic apparatus connected to said digital bus,

said predetermined electronic apparatus comprises said detection means for detecting the necessity to classify the electronic apparatus into said first receiving apparatus and said second receiving apparatus and the necessity to secure a transmission line,

said electronic apparatus classification means of said predetermined electronic apparatus classifies the apparatus when said detection means detects the necessity to classify the electronic apparatus into said first receiving apparatus and said second receiving apparatus and the necessity to secure a transmission line, and

said transmission line securing means of said predetermined electronic apparatus secures a transmission line when said detection means detects the necessity to classify the electronic apparatus into said first receiving apparatus and said second receiving apparatus and the necessity to secure a transmission line.

30. (currently amended) ~~An~~ The information transmission system as claimed in claim 28, wherein

said detection means of said electronic apparatus detects attaching of an electronic apparatus to said digital bus or detaching of an electronic apparatus from said digital bus.

31. (currently amended) ~~An~~ The information transmission system as claimed in claim 28, wherein

said detection means of said electronic apparatus detects an execution instruction input entered by a user that instructs the classification of the electronic apparatus into said first receiving apparatus and said second receiving apparatus and that instructs securing of a transmission line.

32. (currently amended) ~~An~~ The information transmission system as claimed in claim 21, wherein said second receiving apparatus comprises:

transmission line forming means for forming a transmission line of said second connection mode avoiding the transmission line that has been secured as the transmission line of said first connection mode when said second receiving apparatus receives supply of ~~the data~~ data from a target electronic apparatus connected to said digital bus; and

connection means for connecting to a transmission line of said first connection mode used for transmission of ~~the data~~ data when said second receiving apparatus receives supply of ~~the data~~ data transmitted through the transmission line of said first connection mode of said digital bus.

33. (currently amended) ~~An~~ The information transmission system as claimed in claim 32, wherein:

said second receiving apparatus comprises a transmission apparatus specifying means for specifying the sender of ~~the data~~ data transmitted through the transmission line of said first connection mode as said target electronic apparatus that supplies ~~the data~~ data to this apparatus when said second receiving apparatus is to receive a supply of ~~the data~~ data that is being transmitted through the transmission line of said first connection mode, then through a transmission line of said second connection mode, and

said transmission line forming means forms a transmission line of said second connection mode between said second receiving apparatus and the specified electronic apparatus.

34. (currently amended) ~~An~~ The information transmission system as claimed in claim 32, wherein:

said second receiving apparatus comprises apparatus selection input accepting means for accepting a selection input entered by a user to select an sender electronic apparatus from among said plurality of electronic apparatus connected to said digital bus when said second receiving apparatus is to receive supply of ~~the data~~ data from the target electronic apparatus, and

said transmission line forming means forms a transmission line of said second connection mode between said second receiving apparatus and the electronic apparatus instructed according to the apparatus selection input accepted by means of said apparatus selection input accepting means.

35. (currently amended) ~~An~~ The information transmission system as claimed in claim 21, wherein a sending out apparatus that is an electronic apparatus for sending out ~~the data~~ data to said digital bus comprises data sending out means that is capable of sending out ~~the data~~ data through both a transmission line connected in said first connection mode and a transmission line connected in said second connection mode.

36. (currently amended) ~~An~~ The information transmission system as claimed in claim 35, wherein:

said sending out apparatus comprises an instruction input accepting means for accepting an instruction input entered by a user instructing that ~~the data~~ data is sent out to a transmission line connected in said first connection mode, and

said data sending out means sends out ~~the data~~ data to a transmission line of said first connection mode when said data sending means accepts an instruction input entered by a user through said instruction input accepting means.

37. (currently amended) ~~An~~ The information transmission system as claimed in claim 21, wherein an electronic apparatus connected to said digital bus comprises:

changing necessity detection means for detecting the necessity to change the transmission line secured for said first receiving apparatus, and

transmission line changing means for changing the transmission line of said first connection mode secured for said first receiving apparatus when said changing necessity detection means detects the necessity to change the transmission line secured for said first receiving apparatus.

38. (currently amended) ~~An~~ The information transmission system as claimed in claim 37, wherein said changing necessity detection means detects the necessity to change the transmission line secured for said first receiving apparatus when ~~the data~~ data that cannot be processed by mean of said first receiving apparatus is being sent to the transmission line secured for said first receiving apparatus.

39. (currently amended) ~~An~~ The information transmission system as claimed in claim 37, wherein:

change instruction input accepting means for accepting a change instruction input entered by a user for changing the transmission line, and

said changing necessity detection means detects the necessity to change the transmission line secured for said first receiving apparatus when a change instruction input is accepted through said changing instruction input accepting means.

40. (currently amended) ~~An~~ The information transmission system as claimed in claim 21, wherein said digital bus is the IEEE 1394 standard digital serial interface.

41. (currently amended) An electronic apparatus connected to a digital bus having a plurality of transmission lines operable in a first connection mode and a second connection mode ~~and capable of selecting any connection mode from among a first connection mode and a second connection mode to form a transmission line for each of said plurality of transmission lines, wherein~~ wherein in said first connection mode, a first transmission line that transmits ~~the data~~ data sent out from one electronic apparatus so as to be receivable for all other electronic apparatus connected to said digital bus is formed, and in said second connection mode, a second transmission line that transmits ~~the data~~ data between only ~~the predetermined two predetermined~~ electronic ~~apparatus~~ apparatuses and does not accept ~~the data~~ data transmitted from other electronic apparatus is formed, said electronic apparatus comprise:

apparatus classification means for categorizing each of said plurality of electronic apparatus connected to said digital bus into ~~the a~~ a first receiving apparatus that receives ~~the data~~ mainly substantially through a transmission line of said first connection mode and ~~the a~~ a second receiving apparatus that receives ~~the data~~ mainly substantially through a transmission line of said second connection mode, and

transmission line securing means for securing some of said plurality of transmission lines for said first connection mode and for allocating the ~~residual~~remaining transmission lines ~~other than transmission lines secured for said first connection mode~~ out of said ~~plurality of transmission lines~~ of said digital bus to said second connection mode;

wherein the connection mode of each transmission line is pre-selected before the transmission lines are formed.

42. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 41, wherein

said transmission line securing means secures a plurality of transmission lines for said first connection mode correspondingly to the number of said first receiving apparatus connected to said digital bus.

43. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 41, wherein,

in the case that said first receiving apparatus functions to receive ~~the data~~ data through another transmission line while said first receiving apparatus is receiving ~~the data~~ data through one transmission line, said transmission line securing means secures a plurality of transmission lines for said first connection mode correspondingly to the number of said first receiving apparatus obtained on the assumption that there is said first receiving apparatus on every receivable transmission line.

44. (currently amended) An electronic apparatus connected to a digital bus having ~~said a~~ plurality of transmission lines ~~and capable of selecting any connection mode from among a first connection mode and a second connection mode to form a transmission line for said plurality of transmission lines, wherein~~ operable in a first connection mode and second connection mode ~~[[:]] wherein~~ in said first connection mode, at least one ~~a~~ transmission line that transmits ~~the data~~ data sent out from one electronic apparatus so as to be receivable for all other electronic apparatus connected to said digital bus is formed, and in said second connection mode, at least one ~~a~~ transmission line that transmits ~~the data~~ data between only ~~the predetermined two predetermined~~ electronic ~~apparatus~~ apparatuses and does not accept ~~the data~~ data transmitted from any other electronic apparatus is formed, said an ~~an~~ electronic apparatus connected to said digital bus comprises:

apparatus classification means for categorizing said plurality of electronic apparatus connected to said digital bus into ~~the a~~ first receiving apparatus that receives ~~the data~~ mainly substantially through a transmission line of said first connection mode and ~~the a~~ second receiving apparatus that receives ~~the data~~ mainly substantially through a transmission line of said second connection mode at ~~the predetermined timing periods~~; and

transmission line securing means for securing a transmission line of said first connection mode for each of said first receiving apparatus that ~~receive~~ receives ~~the data~~ data mainly substantially through a transmission line of said first connection mode ~~one to one~~ correspondingly and for allocating the remaining transmission lines ~~other than said transmission lines secured for said first connection mode out of said plurality of transmission lines of said~~ digital bus to said second connection mode;

wherein the connection mode of each transmission line is pre-selected before
being formed.

45. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 44,
wherein:

transmission line of said first connection mode is previously set to each said first
receiving apparatus, and

said transmission line securing means allocates a transmission line different from
said previously set transmission line to said first transmission apparatus when ~~the data~~ data that
said first receiving apparatus cannot process is found on the previous set transmission line of said
first receiving apparatus.

46. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 44,
wherein

said transmission line securing means changes the transmission line that is to be
allocated to said first receiving apparatus when the transmission line that is to be allocated to said
first receiving apparatus is exclusively occupied by another apparatus.

47. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 46,
wherein:

a transmission line of said first connection mode is previously set to each of said
first receiving apparatus,

said transmission line securing means refers each setting information of said first receiving apparatus connection to said digital bus, and when the transmission line that is to be allocated to said first receiving apparatus has been already allocated to another electronic apparatus, changes the transmission line that is to be allocated to the first receiving apparatus.

48. (currently amended) ~~An~~The electronic apparatus as claimed in claim 41, wherein:

there is provided first detection means for detecting the necessity to classify the electronic apparatus into said first receiving apparatus and said second receiving apparatus and the necessity to secure the transmission line,

said electronic apparatus classification means classifies the electronic apparatus when said first detection means detects the necessity to classify the electronic apparatus into said first receiving apparatus and said second receiving apparatus and the necessity to secure the transmission line, and

said transmission line securing means secures a transmission line when said first detection means detects the necessity to classify the electronic apparatus into said first receiving apparatus and said second receiving apparatus and the necessity to secure the transmission line.

49. (currently amended) ~~An~~The electronic apparatus as claimed in claim 48, wherein

said first detection means detects the attaching of an electronic apparatus to said digital bus or detaching of an electronic apparatus from said digital bus.

50. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 48,
wherein

said first detection means of said electronic apparatus detects an execution
instruction input for instructing classification of the electronic apparatus into said first receiving
apparatus and said second electronic apparatus and securing a transmission line.

51. (currently amended) An electronic apparatus connected to a digital bus
having ~~said a~~ a plurality of transmission lines operable in a first connection mode and a second
connection mode, and capable of selecting any connection mode from among a first connection
mode and a second connection mode to form a transmission line for said plurality of
~~transmission lines, wherein:~~ wherein in said first connection mode, a transmission line that
transmits ~~the data~~ data sent out from one electronic apparatus so as to be receivable for all other
electronic apparatus connected to said digital bus is formed, and in said second connection mode,
a transmission line that transmits ~~the data~~ data between only ~~the predetermined two~~
predetermined electronic apparatus ~~apparatuses~~ and does not accept ~~the data~~ data transmitted
from other electronic apparatus is formed, said an electronic apparatus ~~bus~~ comprises:

~~second~~ detection means for detecting the necessity to change a transmission line
secured for ~~said a~~ a first receiving apparatus, and

transmission line changing means for changing the transmission line of said first
connection mode secured for said first receiving apparatus when said ~~second~~ detection means
detects the necessity to change the connection mode of the transmission line secured for said first
receiving apparatus;

wherein the connection mode of each transmission line is pre-selected before the transmission lines are formed.

52. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 51,
wherein

said ~~second~~-detection means detects the necessity to change the transmission line secured for said first receiving apparatus when ~~the data~~ data that cannot be processed by ~~mean~~ of said first receiving apparatus is being sent to the transmission line secured for said first receiving apparatus.

53. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 51,
wherein:

there is provided change instruction input accepting means for accepting a change instruction input entered by a user for changing the mode of the transmission line, and

said ~~second~~-detection means detects the necessity to change the transmission line secured for said first receiving apparatus when a change instruction input is accepted through said changing instruction input accepting means.

54. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 41,
wherein

said electronic apparatus is a predetermined electronic apparatus out of the electronic apparatus connected to said digital bus.

55. (currently amended) An electronic apparatus that is connected to a digital bus having a plurality of transmission lines operable in a first connection mode and a second connection mode, and capable of selecting any connection mode from among the first connection mode and the second connection mode to form a transmission line for each of said plurality of transmission lines, and that receives the data mainly through a transmission line connected in said second connection mode, wherein: wherein in said first connection mode, a transmission line that transmits ~~the data~~ data sent out from one electronic apparatus so as to be receivable for all other electronic apparatus connected to said digital bus is formed, and in said second connection mode, a transmission line that transmits ~~the data~~ between only ~~the two~~ two predetermined ~~two electronic apparatus~~ apparatuses and does not accept ~~the data~~ data transmitted from other electronic apparatus is formed, said electronic apparatus comprises:

transmission line forming means for forming a transmission line of said second connection mode such that said forming means ~~avoiding the~~ avoids using a transmission line that has been secured as the transmission line of said first connection mode when ~~said a~~ a second receiving apparatus receives ~~supply of the data~~ data supplied from a target electronic apparatus connected to said digital bus; and

connection means for connecting to a transmission line of said first connection mode used for transmission of ~~the data~~ when said second receiving apparatus receives ~~supply of the data~~ transmitted through the transmission line of said first connection mode of said digital bus;

wherein the connection mode of each transmission line is pre-selected before the transmission lines are formed.

56. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 55,
wherein:

said electronic apparatus comprises transmission apparatus specifying means for specifying the sender of ~~the data~~ data transmitted through the transmission line of said first connection mode as said target electronic apparatus that supplies ~~the data~~ to ~~this~~ said apparatus when ~~this~~ said apparatus is to receive said ~~supply of the data~~ data that is being changed from transmitting data ~~transmitted~~ through ~~the~~ a transmission line of said first connection mode ~~through to~~ a transmission line of said second connection mode, and

said transmission line forming means forms a transmission line of said second connection mode between ~~this~~ said apparatus and ~~the~~ a specified electronic apparatus coupled to said digital bus.

57. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 55,
wherein:

said electronic apparatus comprises apparatus selection input accepting means for accepting a selection input entered by a user to select ~~an~~ a sender electronic apparatus from among said plurality of electronic apparatus connected to said digital bus when ~~this~~ said apparatus is to receive said ~~supply of the data~~ from ~~the~~ a target electronic apparatus; and

said transmission line forming means forms a transmission line of said second connection mode between ~~this~~ said apparatus and ~~the~~ an electronic apparatus ~~instructed~~ accepted according to the apparatus selection input ~~accepted by means of~~ and said apparatus selection input accepting means.

58. (currently amended) An electronic apparatus that is connected to a digital bus having a plurality of transmission lines operable in a first connection mode and a second connection mode, and capable of selecting any connection mode from among a first connection mode and a second connection mode to form a transmission line for each of said plurality of transmission lines, and that operates as a sending out apparatus for sending out the data to said digital bus, wherein in said first connection mode, a transmission line that transmits ~~the data~~ data sent out from one electronic apparatus so as to be receivable for all other electronic apparatus connected to said digital bus is formed, and in said second connection mode, a transmission line that transmits ~~the data~~ data between only ~~the two predetermined two~~ electronic ~~apparatus~~ apparatuses and does not accept ~~the data~~ data transmitted from other electronic apparatus is formed, and said ~~sending out~~ apparatus comprises:

data sending out means ~~that is capable of~~ for sending out ~~the data~~ through both a transmission line ~~connected in~~ said first connection mode and a transmission line ~~connected in~~ said second connection mode;

wherein the connection mode of each transmission line is pre-selected before being formed.

59. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 58, wherein:

there is provided instruction input accepting means for accepting an instruction input entered by a user ~~to instruct~~ such that ~~the data~~ is sent out to a transmission line connected in said first connection mode, and

said data sending out means sends out ~~the data~~ data to the transmission line of said first connection mode when an instruction input entered by a user is accepted through said instruction input accepting means.

60. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 41, wherein said electronic apparatus is connected to the IEEE 1394 standard digital bus.

61. (currently amended) An electronic apparatus connected to a digital bus capable of using both ~~the a~~ first connection mode in which ~~the data~~ data sent out ~~newly~~ to said digital bus is always allowed to be transmitted and a transmission line that transmits said data ~~newly sent out~~ is formed so as to be acceptable ~~for~~ to all the electronic apparatus connected to said digital bus, and ~~the a~~ second connection mode in which ~~the data~~ data is transmitted between only two predetermined electronic ~~apparatus~~ apparatuses and ~~the data~~ data that is transmitted from other electronic ~~apparatus~~ apparatuses to said digital bus is not accepted, ~~wherein~~ said electronic apparatus comprises:

connection mode instruction means for accepting and holding an instruction input ~~to instruct~~ for selecting which connection mode out of said first connection mode and said second connection mode is used for forming a transmission line between electronic ~~apparatus~~ apparatuses for communicating ~~the data~~ data; and

connection control means for controlling ~~to the forming of form~~ a transmission line for ~~the data~~ transmitting data between said electronic ~~apparatus~~ apparatuses for communicating ~~the data~~ data in the selected connection mode corresponding to said instruction input held in said connection mode instruction means.

62. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 61,
wherein said electronic apparatus comprises:

connection apparatus recognition means for inquiring of each electronic apparatus
connected to said digital bus to ~~thereby recognize~~ for recognizing these electronic apparatus
coupled to said digital bus, and

connection mode setting, notifying means for notifying that the connection mode
is set to the target electronic apparatus as required when the connection mode of the transmission
line formed between electronic apparatus recognized by means of said connection apparatus
recognition means.

63. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 62,
wherein

said electronic apparatus comprises connection state notifying means for notifying
the connection state between all the electronic apparatus connected to said digital bus based on
~~the electronic apparatus recognized by means of said connection apparatus recognition means'~~
recognition of each of the electronic apparatus coupled to said digital bus.

64. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 62,
wherein said electronic apparatus comprises:

connection mode detection means for inquiring of into the electronic apparatus
connected to said digital bus to ~~thereby~~ detect the electronic apparatus that has presently formed
a transmission line ~~currently~~ and the connection mode of the transmission line; and

connection mode notifying means for notifying ~~the~~ a detection result supplied from said connection mode detection means.

65. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 62, wherein said electronic apparatus comprises:

~~a discrimination~~ determination means for ~~discriminating~~ determining whether said connection apparatus recognition means recognizes all the electronic apparatus connected to said digital bus ~~or not~~; and

controlling means for controlling said connection apparatus recognition means so as to recognize the electronic apparatus and set the connection mode of the transmission line formed between the electronic ~~apparatus~~ apparatus connected to said digital bus if said ~~discrimination~~ determination means ~~discriminates~~ determines that not all ~~the~~ electronic apparatus apparatuses connected to said digital bus are recognized.

66. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 62, wherein said electronic apparatus comprises:

~~setting start instruction~~ input accepting means for accepting a start instruction input entered by a user to set the connection mode; and

controlling means for controlling said connection apparatus recognition means to recognize the electronic apparatus and so as to set the connection mode of the transmission line formed between the electronic ~~apparatus~~ apparatus connected to said digital bus when said setting start instruction input entered by a user is accepted through said setting start instruction input accepting means.

67. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 62, wherein said electronic apparatus comprises:

~~connection change~~ detection means for detection ~~the~~ a change when the connection between the electronic ~~apparatus~~ apparatuses connected through said digital bus is changed; and

controlling means for controlling said connection apparatus recognition means to recognize the electronic apparatus and so as to set the connection mode of the transmission line between the electronic apparatus connected to said digital bus when said connection change detection means detects the change of connection between the electronic apparatus connected through said digital bus.

68. (currently amended) ~~An~~ The electronic apparatus as claimed in claim 61, wherein said electronic apparatus comprises:

a continuous storing memory for storing and holding the information to instruct the connection mode to be used ~~always~~ when a transmission line is formed between the predetermined electronic ~~apparatus~~ apparatuses; and

writing means for writing the information that instructs the connection mode corresponding to the instruction input given by a user when the user instructs the information to be written in said continuous storing memory.

69. (currently amended) A connection mode setting method for setting the connection mode of a transmission line formed between electronic ~~apparatus~~ apparatuses

connected to a digital bus capable of using both ~~the~~ a first connection mode in which ~~the data~~ data sent out ~~newly~~ to said digital bus is always allowed to be transmitted and a transmission line that transmits said data ~~newly sent out is formed so as to be acceptable for~~ to all the electronic apparatuses connected to said digital bus, and ~~the~~ a second connection mode in which ~~the data~~ data is transmitted between ~~only~~ two predetermined electronic apparatuses and ~~the data~~ data that is transmitted from other electronic apparatuses to said digital bus is not accepted, ~~wherein~~ said method comprising the steps of:

inputting an instruction ~~input to~~ for instruct selecting which connection mode out of said first connection mode and said second connection mode is used for forming a transmission line between electronic apparatuses for communicating ~~the data~~ data ~~is accepted~~ and ~~held~~, and

forming a transmission line for ~~the data~~ data between target electronic apparatuses for communicating ~~the data~~ data in the connection mode corresponding to said ~~held~~ instruction ~~input is formed;~~

wherein the connection mode of said transmission line is pre-selected before
being formed.

70. (currently amended) ~~A~~ The connection mode setting method as claimed in claim 69, wherein:

each electronic apparatus connected to said digital bus is inquired and recognized,
and

a notice for notifying that the connection mode is set to the target electronic apparatus as required when the connection mode of the transmission line formed between said recognized electronic apparatus has been set.

71. (currently amended) A-The connection mode setting method as claimed in claim 70, wherein

the connection state between all the electronic apparatus connected to said digital bus is ~~notified~~ noted based on the internal settings of the recognized electronic apparatus.

72. (currently amended) A-The connection mode setting method as claimed in claim 70, wherein

each electronic apparatus connected to said digital bus is inquired, the electronic apparatus that have formed the transmission line currently and the connection mode of the connection line are detected, and the detection result is ~~notified~~ noted.

73. (currently amended) A-The connection mode setting method as claimed in claim 70, wherein:

~~it is discriminated~~ whether all the electronic apparatus connected to said digital bus are recognized ~~or not~~ is determined, and

all the electronic apparatuses connected to said digital bus are recognized ~~if all the electronic apparatus connected to said digital bus are not recognized~~, and the connection mode of the transmission line formed between the electronic apparatus connected to said digital bus is set.

74. (currently amended) ~~A-~~The connection mode setting method as claimed in claim 70, wherein

all the electronic apparatus connected to said digital bus are recognized when a starting instruction input for setting the connection mode entered by a user is accepted, and the connection mode of the transmission line between electronic apparatus connected to said digital bus is set.

75. (currently amended) ~~A-~~The connection mode setting method as claimed in claim 70, wherein:

~~the a~~ change is detected when the connection of electronic apparatus connected through said digital bus is changed, all the electronic apparatuses connected to said digital bus are recognized when the change of connection of the electronic apparatus connected through said digital bus is detected, and the connection mode of the transmission line formed between the electronic apparatus connected to said digital bus is set.

76. (currently amended) ~~A-~~The connection mode setting method as claimed in claim 70, wherein:

~~there is provided~~ a continuous storing memory for storing and holding the information to instruct the connection mode to be used always when a transmission line is formed between the predetermined electronic apparatus is provided, and

the information that instructs the connection mode corresponding to the instruction input given by a user is written in said continuous storing memory when the user instructs the information to be written in said continuous storing memory.